CROSS-REFERENCE

PLANS ON FILE

SITE: SUPERIOR PLATING COMPANY
SOUTHPORT CT

PLAN: NEW FUME SCRUBBERS, dated December 1997

PREPARED BY: AIR TOX ENVIRONMENTAL COMPANY
WILLINGTON CT
PROJECT #10801

DRAWING LIST:

L1-location & roof plan
S1-structural roof framing
S2-structural framing plans
S3-structural elevations & sections
S4-structural details
S5-structural details
S6-structural specifications
M1-mechanical plan, detail & schedule
M2-mechanical sections & details
M3-mechanical demo plan & specifications
E1-electrical plan & details
E2-electrical details & specifications
E3-electrical specifications
R1-MAPCO reference drawings
R2-MAPCO reference drawings

These plans have been stored in a tube, located across from the end of spacesaver Row # 15.

Environmental Company
AIR TOX
Environmental Solutions For Today's Industries

Superior Plating, Southport, Connecticut Results of SCREEN3 vs. Hazardous Limiting Value for Chromium Emissions

Air Tox Environmental Company has provided ambient chromium concentration data (attachments) utilizing the SCREEN3 air modeling program. This program was developed for the US EPA in 1995 to estimate pollutant concentrations at discrete distances from emission sources. The ambient air model was employed to calculate a maximum ambient air concentration of chromium at the closest fence line from the Superior Plating facility located in Southport, Connecticut.

This screen model incorporates actual stack parameters such as; chromium emission measurements (grams/sec), stack height (meters), stack gas velocity (meters/sec), stack temperatures (deg. K), building and downwash dimensions (meters), and full meteorological data to determine an ambient concentration of chromium at "worst case" meteorological conditions. In addition to the data listed above, this screen model utilizes the same fence line distance of 18.3 meters (as shown in the first column of the first row on the attached data sheets) as previously used to determine the maximum allowable stack concentration (MASC) for Superior Plating's FBD #2 and #3 emission points.

The results of the screen model calculated at 18.3 meters (minimum fence line distance from the two scrubbers) results in a maximum impact of 0.13 micrograms per cubic meter ($\mu g/m^3$). This maximum concentration is significantly less than the hazard limiting value (HLV) of 0.25 $\mu g/m^3$, chosen for an eight hour period of time, as published on Table 29-1 in Section 22a-174-29 of the **Regulations of the Connecticut Department of Environmental Protection Concerning Abatement of Air Pollution - Toxic Air Pollutants.**

P.O. Box 239 • Willington, Connecticut 06279 • 860-487-5606 • Fax 860-487-5607

10/16/98
07:54:23

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

SUPERIOR PLATING FB#2

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.397000E-03
STACK HEIGHT (M)	=	10.0000
STK INSIDE DIAM (M)	=	1.2192
STK EXIT VELOCITY (M/S)	=	9.7134
STK GAS EXIT TEMP (K)	=	307.5940
AMBIENT AIR TEMP (K)	=	302.5940
RECEPTOR HEIGHT (M)	=	2.0000
URBAN/RURAL OPTION	=	URBAN
BUILDING HEIGHT (M)	=	5.4860
MIN HORIZ BLDG DIM (M)	=	9.1440
MAX HORIZ BLDG DIM (M)	=	39.6240

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 11.340000 (M**3/S)

BUOY. FLUX = .575 M**4/S**3; MOM. FLUX = 34.492 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN DISCRETE DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
18.	.8065E-01	4	20.0	20.0	6400.0	8.47	2.93	3.97	HS
40.	.6621E-01	3	10.0	10.0	3200.0	11.53	8.77	8.04	HS
60.	.6033E-01	3	4.0	4.0	1280.0	18.88	13.29	12.27	NO
120.	.5688E-01	4	3.0	3.0	960.0	21.84	19.06	16.85	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** REGULATORY (Default) ***
PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)
****

*** CAVITY CALCULATION - 1 *** *** CAVITY CALCULATION - 2 ***

CONC (UG/M**3)	=	.0000	CONC (UG/M**3)	=	.0000
CRIT WS @10M (M/S)	=	99.99	CRIT WS @10M (M/S)	=	99.99
CRIT WS @ HS (M/S)	=	99.99	CRIT WS @ HS (M/S)	=	99.99
DILUTION WS (M/S)	=	99.99	DILUTION WS (M/S)	=	99.99
CAVITY HT (M)	=	6.49	CAVITY HT (M)	=	5.49
CAVITY LENGTH (M)	=	25.02	CAVITY LENGTH (M)	=	11.30
ALONGWIND DIM (M)	=	9.14	ALONGWIND DIM (M)	=	39.62

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

****
END OF CAVITY CALCULATIONS
****

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	.8065E-01	18.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

10/16/98
08:07:58

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

SUPERIOR PLATING FB#3

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.554000E-03
STACK HEIGHT (M)	=	10.0000
STK INSIDE DIAM (M)	=	1.2192
STK EXIT VELOCITY (M/S)	=	16.9343
STK GAS EXIT TEMP (K)	=	305.4000
AMBIENT AIR TEMP (K)	=	297.0000
RECEPTOR HEIGHT (M)	=	2.0000
URBAN/RURAL OPTION	=	URBAN
BUILDING HEIGHT (M)	=	5.4860
MIN HORIZ BLDG DIM (M)	=	9.1440
MAX HORIZ BLDG DIM (M)	=	39.6240

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 19.770000 (M**3/S)

BUOY. FLUX = 1.697 M**4/S**3; MOM. FLUX = 103.636 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN DISCRETE DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
18.	.4781E-01	4	20.0	20.0	6400.0	10.24	2.96	4.00	HS
40.	.4533E-01	3	10.0	10.0	3200.0	15.26	8.86	8.14	HS
60.	.4814E-01	3	8.0	8.0	2560.0	17.74	13.23	12.20	NO
120.	.4567E-01	4	5.0	5.0	1600.0	22.39	19.09	16.88	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** REGULATORY (Default) ***
PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)
****

*** CAVITY CALCULATION - 1 *** *** CAVITY CALCULATION - 2 ***

CONC (UG/M**3)	=	.0000	CONC (UG/M**3)	=	.0000
CRIT WS @10M (M/S)	=	99.99	CRIT WS @10M (M/S)	=	99.99
CRIT WS @ HS (M/S)	=	99.99	CRIT WS @ HS (M/S)	=	99.99
DILUTION WS (M/S)	=	99.99	DILUTION WS (M/S)	=	99.99
CAVITY HT (M)	=	6.49	CAVITY HT (M)	=	5.49
CAVITY LENGTH (M)	=	25.02	CAVITY LENGTH (M)	=	11.30
ALONGWIND DIM (M)	=	9.14	ALONGWIND DIM (M)	=	39.62

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S. CONC SET = 0.0

****
END OF CAVITY CALCULATIONS
****

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	.4814E-01	60.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

Superior Compliance Test - 8/29/97

Calculated Stack Concentration - FBD #2 (25 hp)

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (µg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.048 mg/dscm**
	M_{Cr}= 123
	T_m= 74
	Y_m= 1.033
	V_m= 88.49
	P_{bar}= 29.79

Test #2	C_{Cr}= **0.03 mg/dscm**
	M_{Cr}= 75.5
	T_m= 82
	Y_m= 1.033
	V_m= 90.04
	P_{bar}= 29.81

Test #3	C_{Cr}= **0.026 mg/dscm**
	M_{Cr}= 65.5
	T_m= 84
	Y_m= 1.033
	V_m= 88.9
	P_{bar}= 29.81

Average emission rate = 0.035 mg/dscm (Superior's limit is 0.015 mg/dscm)

Superior Compliance Test - 8/29/97
Calculated Stack Concentration - FBD #3(75 hp)

$$C_{Cr} = \frac{(M_{Cr})(T_m + 460)}{(499.8)(Y_m)(V_m)(P_{bar})}$$

M_{Cr}= Amount of Cr in sample (µg)
T_m= Dry gas meter temperature
Y_m= Dry gas meter correction factor
V_m= Dry gas meter volume (ft^3)
P_{bar}= Barometric pressure

Test #1	C_{Cr}= **0.026 mg/dscm**
	M_{Cr}= 61.3
	T_m= 75
	Y_m= 0.98
	V_m= 88
	P_{bar}= 29.79

Test #2	C_{Cr}= **0.029 mg/dscm**
	M_{Cr}= 69.1
	T_m= 79
	Y_m= 0.98
	V_m= 89.5
	P_{bar}= 29.81

Test #3	C_{Cr}= **0.028 mg/dscm**
	M_{Cr}= 68.8
	T_m= 89
	Y_m= 0.98
	V_m= 91.75
	P_{bar}= 29.81

Average emission rate = 0.028 mg/dscm (Superior's limit is 0.015 mg/dscm)

MASC Calculation for FBD #2

Hazardous Limiting Value(HLV) =	0.25 $\mu g/m^3$	
Distance from discharge point to nearest property line (x) =	18.3 meters	60.0 feet
Average actual flow rate (v) =	24025 acfm	
	11.340 m^3/sec	
Maximum Allowable Stack Concentration	2.670 $\mu g/m^3$	
	0.003 mg/m^3	

FAX 565-4939

UNITED STATES EI

JOHN F. I
BOSTON,

Post-it® Fax Note 7671	Date	# of pages ▶
To Carolyn Pino	From Air Tox	
Co./Dept.	Co. John Schneid	
Phone #	Phone #	
Fax # 565-4939	Fax #	

August 22, 1997

Dan Aune
Air Tox Environmental Company, In..
P.O. Box 239
Willington, CT 06279

BY MAIL AND FAX

Re: Review of Chromium Test Protocol - Superior Plating Co., Southport, CT

Dear Mr. Aune:

Your letter dated July 7, 1997 to Al Hicks of EPA Region I New England encloses a chromium test protocol for Superior Plating, and an Intent to Test Notification. This letter requested a chromium test date of July 22, 1997. A subsequent letter from Richard Durazzo of Superior Plating to me indicates that the former date was not acceptable to the Connecticut Department of Environmental Protection, and requests a revised test date of August 29, 1997. It is my understanding from talking with George Miller of the Connecticut DEP that the August 29, 1997 date is acceptable to DEP. EPA has no objection to the proposed August 29, 1997 testing date, and does not intend to witness the test.

I have reviewed the chromium test protocol for Superior Plating. The test protocol is acceptable subject to satisfactory revision to address the comments below. Air Tox should submit a complete revised test protocol incorporating these revisions with copies to me and Jack Harvanek of our Lexington lab (same address as Al Hicks).

1) A more detailed description of how process and control system data is to be recorded during the testing would be helpful, as would an indication that instrumentation used to monitor these data have been calibrated and are in proper working order. Note that the stack test would be invalid if these equipment are not working properly to simultaneously establish site-specific operating parameter compliant values.

2) The test protocol indicates that "every attempt will be made to maximize the process operating conditions during testing." The test protocol needs to indicate more specifically the operating conditions during testing in terms of rectifier capacity and the number of tanks in operation, especially in light of the facility's large maximum cumulative rectifier capacity (897 million amp-hours/yr), and indicate based on operating records how this compares to typical operating conditions.

3) The test protocol is unclear as to whether Diagram 4.1, "Sampling Port Locations", applies to both stacks to be tested. The text indicates (p. 8) that the four sampling ports are pre-existing.

Please clarify if this applies to both stacks. It would be preferable to revise the large plans accompanying the protocol to indicate directly on the plans where the sampling ports are located.

4) The protocol indicates on page 8 that 24 sampling points are required by Method 306A and will be utilized. Method 306A indicates (at Section 5.1.1.1, "Procedure"/Port Location"), that 24 sampling points are to be used for round ducts and 25 points for square ducts. The plans submitted with the protocol appear to indicate that both ducts are square. In this case, 25 sampling points would be needed to comply. Please clarify the duct shape and resubmit with 25 points if the ducts are square. However, if you still wish to request use of the existing four sampling ports and 24 sampling points due to operational considerations, contact Jack Harvanek of OEME-Lexington (or in his absence, Al Hicks of the same office) to discuss whether use of 24 sampling points is acceptable in this instance and obtain his advance approval prior to testing before adopting this deviation from the test method.

5) The QA/QC procedures to be used by Environmental Health Laboratories for lab analysis as part of the protocol are under separate review by our lab. These comments are forthcoming and will be submitted directly to you.

6) P. 12 of the protocol indicates that "sampling procedures will be repeated until three one-hour samples have been collected", at variance with p. 3 which indicates that three two-hour tests will be conducted. Method 306A requires three two-hour tests. Please clarify that a two-hour sampling time will be conducted and correct p. 12 accordingly.

If you have questions, please contact me at (617)-565-3281 or Jack Harvanek at 617-860-4391.

Sincerely,

Roy Crystal

Roy Crystal, Environmental Scientist

cc: Jack Harvanek, EPA
Mark Spiro, CT DEP
George Miller, CT DEP
Richard Durazzo, Superior Plating Company

Carolyn Pina 617 - 565 - 3244

If you have questions, please contact me at (617)-565-3281 or Jack Harvanek at 617-860-4391.

Sincerely,

Roy Crystal, Environmental Scientist

cc: Jack Harvanek, EPA
Mark Spiro, CT DEP
George Miller, CT DEP
Paul Spada, A-1 Chrome Plating & Polishing

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

March 1, 1999

Mr. Carmine DiBattista, Chief
Air Management Bureau
CT Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

RE: Superior Plating Company

Dear Mr. DiBattista:

I am writing this letter in order to state our understanding of the DEP's enforcement case against Superior Plating Company of Southport, CT and to also inform you of the level of importance EPA places on the adequate and expeditious enforcement settlement and the facility's full compliance with both the state's Maximum Allowable Stack Concentration (MASC) and EPA's regulations for Maximum Achievable Control Technology (MACT) for Chrome Plating. I also wish to acknowledge the significant efforts and cooperation provided by your staff as our two agencies have jointly assisted each other with the Superior Plating enforcement case development.

Since compliance with the emissions related pieces of the two regulations has been achieved, EPA's attention is focused on assessment of an adequate penalty to capture both the "economic benefit" associated with these violations and also an adequate "gravity" penalty amount for deterrence. EPA has historically placed great importance on neutralizing all economic benefit gained by violators. Our national policies, which provide guidance to our case teams and state agency partners, clearly require that "economic benefit" plus an adequate gravity component be assessed in all air program enforcement settlements. Therefore, to meet EPA's policy concerns, the settlement should include a component that captures the company's economic benefit derived from failing to install the controls needed to meet the MACT standard. If it does not, I will recommend that EPA initiate an enforcement action for violations of the federal MACT standard. This enforcement action would have the primary goal of assessing the total economic benefit not captured by the state action plus an adequate gravity penalty.

Although we continue to believe that an adequate State resolution of these violations and enforcement case is in the best interests of all parties and the environment, we believe it important that EPA's position be known and clearly stated. We also remain committed to

providing ongoing assistance to your case team wherever you feel our expertise is of benefit to you. Please contact me at (617) 918-1741 or Steven Caldor of my staff at (617) 918-1744.

Sincerely,

Gregory A. Roscoe

Gregory Roscoe, Director
Air, Pesticides and Toxic Enforcement Office

cc: Mr. John L. Raymond, President, Superior Plating Co.
Mr. Patrick Bowe, CT DEP

SEP 3 1 4:15

facsimile
TRANSMITTAL

[redacted]

to: Steve Calder
fax #: (617) 918-181
re: Superior Plating Co.
date: March 9, 1999
pages: 4, including this cover sheet.
3

Ben calculations and supporting calculations for the discount rate submitted to DEP by Superior Plating Company.

From the desk of...

Matthew Hemming
Air Pollution Control Engineer Intern
Connecticut DEP
79 Elm Street
Hartford, CT 06106

(860) 424-3554
Fax: (860) 424-4179

Superior Plating

Cost of Money - Actual Sources of Funds

	Balance 10/1/97	Balance 9/30/98	Funds Used	Rate	Annual Cost	
In savings	$223,235.00	$12,412.00	$210,823.00	3%	$6,325	
Life insurance loan	($100,000.00)	($400,000.00)	$300,000.00	6.70%	$20,100	
Checking surplus**	$266,977.00	($46,655.00)	$313,632.00	5%	$15,682	avoids bank charges at 5%
Total	$890,212.00	($434,243.00)	$824,455.00		$42,108	
Avg Rate					5.11%	

**Checking balance 10/1/97 was $431420. Used $266,977 as excess amount to balance total spending to $824,455.

A. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE IN 1997 DOLLARS	$	501
B. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE PLUS ALL FUTURE REPLACEMENT CYCLES IN 1997 DOLLARS	$	501
C. VALUE OF DELAYING EMPLOYMENT OF POLLUTION CONTROL EQUIPMENT BY 13 MONTHS PLUS ALL FUTURE REPLACEMENT CYCLES IN 1997 DOLLARS	$	484
D. ECONOMIC BENEFIT OF A 13 MONTH DELAY IN 1997 DOLLARS (EQUALS B MINUS C)	$	17
E. THE ECONOMIC BENEFIT AS OF THE PENALTY PAYMENT DATE, 19 MONTHS AFTER NONCOMPLIANCE	$	18

(DOLLARS IN THOUSANDS)

->->->->->-> THE ECONOMIC BENEFIT CALCULATION ABOVE <-<-<-<-<-<-
USED THE FOLLOWING VARIABLES:

USER SPECIFIED VALUES

1A. CASE NAME =		SPC	
1B. PROFIT STATUS =		FOR-PROFIT	
1C. FILING STATUS =		C-CORPORATION	
2. INITIAL CAPITAL INVESTMENT (ONE TIME) =	$	767554	1998 DOLLARS
3. ONE-TIME NONDEPRECIABLE EXPENDITURE = (TAX-DEDUCTIBLE EXPENSE)	$	4000	1998 DOLLARS
4. ANNUAL EXPENSE =	$	0	
5. FIRST MONTH OF NONCOMPLIANCE =		8, 1997	
6. COMPLIANCE DATE =		9, 1998	
7. PENALTY PAYMENT DATE =		3, 1999	
8. USEFUL LIFE OF POLLUTION CONTROL EQUIPMENT =		15 YEARS	
9. MARGINAL INCOME TAX RATE FOR 1986 AND BEFORE =		49.6 %	
10. MARGINAL INCOME TAX RATE FOR 1987 TO 1992 =		38.6 %	
11. MARGINAL INCOME TAX RATE FOR 1993 AND BEYOND =		39.4 %	
12. ANNUAL INFLATION RATE =		1.8 %	
13. DISCOUNT RATE: WEIGHTED-AVERAGE COST OF CAPITAL		5.1 %	

STEV 3/9 4:30

Cynthia SO

facsimile TRANSMITTAL

to: Arnold Leriche
fax #: (617) 918-1809
re: Superior Plating Co.
date: March 9, 1999
pages: 4, including this cover sheet.

Ben calculations and supporting calcu' ' ons for discount rate, submitted by Superior Plating Co. to DEP.

From the desk of...

Matthew Hemming
Air Pollution Control Engineer Intern
Connecticut DEP
79 Elm Street
Hartford, CT 06106

(860) 424-3554
Fax: (860) 424-4179

Superior Plating

Cost of Money - Actual Sources of Funds

	Balance 10/1/97	Balance 9/30/98	Funds Used	Rate	Annual Cost	
In savings	$223,235.00	$12,412.00	$210,823.00	3%	$6,325	
Life insurance loan	($100,000.00)	($400,000.00)	$300,000.00	6.70%	$20,100	
Checking surplus**	$266,977.00	($46,655.00)	$313,632.00	5%	$15,682	avoids bank charges at 5%
Total	$390,212.00	($434,243.00)	$824,455.00		$42,106	
Avg Rate					5.11%	

**Checking balance 10/1/97 was $431420. Used $266,977 as excess amount to balance total spending to $824,455.

A. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE IN 1997 DOLLARS	$	501
B. VALUE OF EMPLOYING POLLUTION CONTROL ON-TIME AND OPERATING IT FOR ONE USEFUL LIFE PLUS ALL FUTURE REPLACEMENT CYCLES IN 1997 DOLLARS	$	501
C. VALUE OF DELAYING EMPLOYMENT OF POLLUTION CONTROL EQUIPMENT BY 13 MONTHS PLUS ALL FUTURE REPLACEMENT CYCLES IN 1997 DOLLARS	$	484
D. ECONOMIC BENEFIT OF A 13 MONTH DELAY IN 1997 DOLLARS (EQUALS B MINUS C)	$	17
E. THE ECONOMIC BENEFIT AS OF THE PENALTY PAYMENT DATE, 19 MONTHS AFTER NONCOMPLIANCE	$	18

(DOLLARS IN THOUSANDS)

>->->->->-> THE ECONOMIC BENEFIT CALCULATION ABOVE <-<-<-<-<-<-
USED THE FOLLOWING VARIABLES:

USER SPECIFIED VALUES

1A. CASE NAME =		SPC
1B. PROFIT STATUS =		FOR-PROFIT
1C. FILING STATUS =		C-CORPORATION
2. INITIAL CAPITAL INVESTMENT (ONE TIME) =	$	767554 1998 DOLLARS
3. ONE-TIME NONDEPRECIABLE EXPENDITURE =	$	4000 1998 DOLLARS
(TAX-DEDUCTIBLE EXPENSE)		
4. ANNUAL EXPENSE =	$	0
5. FIRST MONTH OF NONCOMPLIANCE =		8, 1997
6. COMPLIANCE DATE =		9, 1998
7. PENALTY PAYMENT DATE =		3, 1999
8. USEFUL LIFE OF POLLUTION CONTROL EQUIPMENT =		15 YEARS
9. MARGINAL INCOME TAX RATE FOR 1986 AND BEFORE =		49.6 %
10. MARGINAL INCOME TAX RATE FOR 1987 TO 1992 =		38.6 %
11. MARGINAL INCOME TAX RATE FOR 1993 AND BEYOND =		39.4 %
12. ANNUAL INFLATION RATE =		1.8 %
13. DISCOUNT RATE: WEIGHTED-AVERAGE COST OF CAPITAL		5.1 %

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Sign in Sheet

James Westwood	CFO - Superior Plating
Nancy A. D. Hancock	Member - Pullman & Comley, LLC
CHARLES V. CAMPBELL, Jr.	Pullman & Comley,
THOMAS A. ROWSE	"
MATTHEW J. HEMMING	DEP
Arnold Leriche	USEPA
PAT Bowe	DEP
Robert LAFRANCE	DEP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 14, 1998

John L. Raymond, President
Superior Plating Company
Lacey Place
Southport, CT 06490

Re: Clean Air Act Administrative Order
and Reporting Requirement
Docket No. AAA-98-0033

Dear Mr. Raymond:

Enclosed is an Administrative Order and Reporting Requirement issued by the United States Environmental Protection Agency (EPA) to Superior Plating Company, concerning violations of the Clean Air Act at your Southport, Connecticut facility. The order requires you to develop a Compliance Plan and retest your chromium emissions to verify compliance with the emission limits of the Chromium Standard according to 40 C.F.R. Part 63, Subpart N.

The Reporting Requirement requires Superior Plating Company to provide certain documents and information within 30 days to assure compliance with the Chromium Standard in a timely manner. The facility is required to develop a Compliance Plan and schedule to implement the plan.

Superior Plating Company may want to confer with EPA concerning the violations cited in the Order. EPA is currently evaluating the possibility of a further enforcement response to the

violations. The Order sets out the procedure for requesting a conference. If you have any questions please call Steven Calder of my staff at (617) 565-3244.

Sincerely,

Sam Silverman for

Ira W. Leighton, Acting Director
Office of Environmental Stewardship

Enclosure

cc: Michael Sullivan, CT DEP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

IN THE MATTER OF	)	Docket No. AAA-98-0033
	)	
Superior Plating	)	ADMINISTRATIVE ORDER
Lacey Place	)	
Southport, Connecticut 06490	)	AND
	)	
Proceeding under Sections 113 and 114 of the Clean Air Act	)	REPORTING REQUIREMENT

STATUTORY AUTHORITY

The United States Environmental Protection Agency (EPA) issues this Administrative Order under Sections 113(a)(3) and 114 of the Clean Air Act (the Act). This Order requires Superior Plating Company ("Superior") to comply with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Hard and Decorative Chromium Anodizing Tanks (40 C.F.R. Part 63 Subpart N, the "chromium standard") promulgated under Section 112 of the Act by conducting emissions testing at its facility in Southport, Connecticut. Superior is also required to submit documentation to EPA under Section 114 of the Act.

I. FINDINGS

A. Superior of Southport, Connecticut, owns and operates a hard chromium electroplating facility at Lacey Place, Southport, Connecticut.

B. Among other things, the chromium standard requires the owner or operator of an existing affected facility which conducts hard chromium electroplating to comply with the emission

limitation by January 25, 1997 and to conduct emissions testing by July 25, 1997.

C. On August 29, 1997, Superior conducted emissions testing of its chrome plating processes.

D. Superior's chrome plating process, among other requirements, is subject to a federal emission limit of 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) found at 40 C.F.R. § 63.342(c)(1).

E. On or about November 17, 1997, EPA received a copy of Superior's emission sampling results. Review of the emission test report submitted by Superior revealed that Superior failed to achieve the emission limits established by 40 C.F.R. § 63.342(c)(1). Emissions were measured at 0.035 mg/dscm and 0.028 mg/dscm for the #2 fiber bed demister (FBD) and #3 FBD, respectively.

F. On June 15, 1998, EPA conducted an inspection and obtained information from Superior.

G. To date, Superior has not documented compliance with the emission limits required by the chromium emission standard at 40 C.F.R. § 63.342(c)(1).

Based on the foregoing, I hereby find Superior to be in violation of 40 C.F.R. § 63.342(c)(1).

II. ADMINISTRATIVE ORDER

A. Pursuant to Sections 113(a)(3) and 114(a)(1) of the Clean Air Act, Superior is hereby required to comply with the emission limit for hard electroplating tanks in accordance with

40 C.F.R. § 63.342(c)(1). Superior shall attain compliance as soon as technically feasible, but no later than November 1, 1998.

B. Within 30 days after completing the implementation of Superior's Compliance Plan to comply with the emission limits (see Section III.A.1 below) but no later than November 1, 1998, Superior shall conduct chromium emissions testing (performance testing) in accordance with EPA Reference Methods found at 40 C.F.R. Part 63, Appendix A, or equivalent procedures as approved by EPA.

C. Superior may confer with EPA concerning this Order and the findings on which it is based. To schedule a conference, please contact Steven Calder at (617) 565-3244 within one week of receipt of this Order. Superior has the right to be represented by counsel at such a conference.

III. REPORTING REQUIREMENT

A. Pursuant to Sections 113(a)(3) and 114(a)(1) of the Clean Air Act, Superior shall submit the following information to the EPA and the CT DEP after receipt of this Administrative Order and Reporting Requirement according to the following schedule:

1. Within 30 days of receipt of this Order, submit to EPA and the Connecticut Department of Environmental Protection (CT DEP):

(a) a Compliance Plan for complying with the emission limits including the technical basis for Superior's proposal to meet the emission limits.

(b) a schedule for implementing the Compliance Plan including but not limited to:
(i) the completion date of the Compliance Plan for complying with the emission limits;

(ii) a schedule for conducting performance testing including but not limited to:
(A) the submission date for a pretest protocol for the performance testing;
(B) the date for performance testing to measure the actual emission rate; and
(C) the submission date of the performance testing results.

2. Within 60 days before the compliance testing date, Superior shall submit a pretest protocol for testing the chromium emissions as outlined in Attachment A;

3. Within 90 days after conducting the performance testing, submit to EPA and the CT DEP a test report containing all information specified in Paragraph B of Attachment A.

Submit the information required above to the following address:

Ira W. Leighton, Acting Director
Office of Environmental Stewardship
U.S. Environmental Protection Agency
J.F.K. Federal Building (SEA)
Boston, Massachusetts 02203
Attn: Steven Calder

and

Michael Sullivan
Director of Engineering and Enforcement
Department of Environmental Protection
79 Elm Street
Hartford, CT 06490
Attention: Elizabeth McAulife

B. You may, if desired, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. Section 2.203(b) (see attachment). EPA will disclose information covered by such a claim only to the extent, and according to the procedures, set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, EPA may make it available to the public

without further notice to you. You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly subject to such a claim.

C. Please be advised that failure to provide information required by this Administrative Order and Reporting Requirement could result in an enforcement action by EPA under Section 113 of the Act. Among other remedies, Section 113 includes criminal penalties for false statements, representations, or certifications to EPA.

IV. EFFECTIVE DATE AND APPLICATION

The Administrative Order and the Reporting Requirement shall become effective upon receipt. If you have any questions regarding this matter, please contact Steven Calder at (617) 565-3244. The provisions of this Administrative Order and Reporting Requirement apply to Superior, its partners, officers, employees, agents, successors and assigns. The issuance of this Order does not preclude or limit further action by EPA to address violations of 40 C.F.R. Part 63 and the Act.

John P. DeVillars
Regional Administrator

7/13/98
Date

This Administrative Order and Reporting Requirement is not subject to the Paperwork Reduction Act.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

John L. Raymond, President
Superior Plating
Lacey Place
Southport, CT 06490

4a. Article Number
Z 276 578 626

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
7/16

5. Received By: *(Print Name)*
Pat LAGO

6. Signature: *(Addressee or Agent)*
X

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 276 578 626

Receipt for Certified Mail 7/14
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form **3800**, March 1993

Sent to
John L Raymond, President
Street and No.
Superior Plating
P.O. State and ZIP Code
Southport, CT 06490

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$

Postmark or Date

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Print your name, address, and ZIP Code in this box •

U.S. ENVIRONMENTAL PROTECTION AGENCY
JFK FEDERAL BUILDING
BOSTON, MA 02203

SEA

ATTN: Steve Calder

PS Form 3800, March 1993 (Reverse)

STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES (see front).

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached and present the article at a post office service window or hand it to your rural carrier (no extra charge).

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach and retain the receipt, and mail the article.

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article RETURN RECEIPT REQUESTED adjacent to the number.

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse RESTRICTED DELIVERY on the front of the article.

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811.

6. Save this receipt and present it if you make inquiry.

105803-93-B-0218

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I

FOIA EXEMPT/ATTORNEY-CLIENT COMMUNICATION/ENFORCEMENT SENSITIVE

MEMORANDUM

DATE: June 22, 1998

SUBJ: Proposed Administrative Order for Exceeding
Chromium MACT Standard Emission Limits under the Clean Air Act
Superior Plating Company, Southport, CT

FROM: Ira W. Leighton, Acting Director SLS for IWL
Office of Environmental Stewardship

TO: John P. DeVillars, Regional Administrator

I. Type and Location of Facility

Superior Plating Company (Superior) operates a facility in southern Connecticut which engages in hard chromium electroplating for aerospace, defense and other industries.

II. Nature and Environmental Significance of Violation

The attached Administrative Order addresses air emission violations for exceeding the chromium emission limit under 40 C.F.R. Part 63, Subpart N of the Clean Air Act at Superior. This facility was targeted as part of the region's industrial sector enforcement strategy. In November 1997, Superior submitted the results of its chromium emissions testing as required by the chromium standard. The results indicated Superior failed to meet the level of emissions required by the chromium standard.

This non-penalty administrative order requires the facility to emit chromium into the environment at a concentration at or below the regulatory level. Some chromium compounds are highly toxic and are known carcinogens. By limiting the emissions of chromium, human health and the environment are more protected.

III. Type of Action

This order requires Superior to complete the installation of a new emission control and destruction system as soon as technically feasible and on an enforceable timetable. Furthermore, Superior is required to conduct performance testing of its chromium electroplating process after completing the installation of the new equipment.

IV. Significant Issues

The facility is spending over $900,000 to install the new system and should be operating the system by the end of September 1998. This administrative order is being issued to ensure the facility timely meets the chromium standard.

Furthermore, the facility is located in an urban area where human health can be directly affected by exposure to chromium emissions. Also, the facility is located immediately adjacent to the Mill River which flows into Southport Harbor and eventually the Long Island Sound. Chromium emissions may enter the estuary by deposition from the air into the water. Therefore, emissions from the facility have the potential of negatively impacting human health and the environment.

V. Contacts with the Facility

Region I conducted an inspection at Superior located in Southport, CT on June 15, 1998. The information gathered at the inspection confirmed the facility is installing three new wet scrubbers to comply with the chromium standard.

At the out-briefing of the inspection, EPA explained that non-compliance with the chromium standard was the main purpose for the inspection. Richard Durazzo, Environmental Manager, was designated as the main contact by the president of the company Mr. John Raymond.

VI. External Interest and/or Contacts

EPA has notified the state of Connecticut about the issuance of this Administrative Order. The CT DEP had issued a Notice of Violation to the facility on January 16, 1998 for exceeding the state standard for emissions of chromium. EPA is coordinating with the CT DEP to develop any further enforcement action against Superior, including the possibility of issuing a penalty action.

VII. EPA Staff Contacts

Steven Calder, Air Technical Unit, 565-3244; Thomas Olivier, Legal Enforcement Unit, 565-1146.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region I

FOIA EXEMPT/ATTORNEY-CLIENT COMMUNICATION/ENFORCEMENT SENSITIVE

MEMORANDUM

DATE: June 22, 1998

SUBJ: Proposed Administrative Order for Exceeding Chromium MACT Standard Emission Limits under the Clean Air Act Superior Plating Company, Southport, CT

FROM: Ira W. Leighton, Acting Director
Office of Environmental Stewardship

TO: John P. DeVillars, Regional Administrator

I. Type and Location of Facility

Superior Plating Company (Superior) operates a facility in southern Connecticut which engages in hard chromium electroplating for aerospace, defense and other industries.

II. Nature and Environmental Significance of Violation

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This non-penalty administrative order requires the facility to emit chromium into the environment at a concentration at or below the regulatory level. Some chromium compounds are highly toxic and are known carcinogens. By limiting the emissions of chromium, human health and the environment are more protected.

III. Type of Action

This order requires Superior to complete the installation of a new emission control and destruction system as soon as technically feasible and on an enforceable timetable. Furthermore, Superior is required to conduct performance testing of its chromium electroplating process after completing the installation of the new equipment.

CONCURRENCES							
SYMBOL	SEA	SEA	OES (for)	SEE			
SURNAME	[illegible]	Weeks	OLIVIER	Silverman			
DATE	7/7/98	7/7/98	7/7/98	7-7-98			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

IN THE MATTER OF	)	Docket No. AAA-98-0033
	)	
Superior Plating	)	ADMINISTRATIVE ORDER
Lacey Place	)	
Southport, Connecticut 06490	)	AND
	)	
Proceeding under Sections 113 and 114 of the Clean Air Act	)	REPORTING REQUIREMENT

STATUTORY AUTHORITY

The United States Environmental Protection Agency (EPA) issues this Administrative Order under Sections 113(a)(3) and 114 of the Clean Air Act (the Act). This Order requires Superior Plating Company ("Superior") to comply with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Hard and Decorative Chromium Anodizing Tanks (40 C.F.R. Part 63 Subpart N, the "chromium standard") promulgated under Section 112 of the Act by conducting emissions testing at its facility in Southport, Connecticut. Superior is also required to submit documentation to EPA under Section 114 of the Act.

I. FINDINGS

A. Superior of Southport, Connecticut, owns and operates a hard chromium electroplating facility at Lacey Place, Southport, Connecticut.

B. Among other things, the chromium standard requires the owner or operator of an existing affected facility which conducts hard chromium electroplating to comply with the emission

CONCURRENCES

SYMBOL	SEA	SEA	OES	SEE				
SURNAME	SAP	Wentworth	OLIVIER (for)	Silverman				
DATE	6/23/98	7/7/98	7/7/98	7-7-98				

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John L. Raymond, President
Superior Plating Company
Lacey Place
Southport, CT 06490

Re: Clean Air Act Administrative Order
and Reporting Requirement
Docket No. AAA-98-0033

Dear Mr. Raymond:

Enclosed is an Administrative Order and Reporting Requirement issued by the United States Environmental Protection Agency (EPA) to Superior Plating Company, concerning violations of the Clean Air Act at your Southport, Connecticut facility. The order requires you to develop a Compliance Plan and retest your chromium emissions to verify compliance with the emission limits of the Chromium Standard according to 40 C.F.R. Part 63, Subpart N.

The Reporting Requirement requires Superior Plating Company to provide certain documents and information within 30 days to assure compliance with the Chromium Standard in a timely manner. The facility is required to develop a Compliance Plan and schedule to implement the plan.

Superior Plating Company may want to confer with EPA concerning the violations cited in the Order. EPA is currently evaluating the possibility of a further enforcement response to the

CONCURRENCES								
SYMBOL	SEA	SEA	OES	SEE				
SURNAME	SLR	Weeks	OLIVIER for Silverman					
DATE	7/7/98	7/7/98	7/7/98	7-7-98				

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

IN THE MATTER OF	)	Docket No. AAA-98-0033
Superior Plating Lacey Place Southport, Connecticut 06490	)	ADMINISTRATIVE ORDER AND
Proceeding under Sections 113 and 114 of the Clean Air Act	)	REPORTING REQUIREMENT

STATUTORY AUTHORITY

The United States Environmental Protection Agency (EPA) issues this Administrative Order under Sections 113(a)(3) and 114 of the Clean Air Act (the Act). This Order requires Superior Plating Company ("Superior") to comply with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Hard and Decorative Chromium Anodizing Tanks (40 C.F.R. Part 63 Subpart N, the "chromium standard") promulgated under Section 112 of the Act by conducting emissions testing at its facility in Southport, Connecticut. Superior is also required to submit documentation to EPA under Section 114 of the Act.

I. FINDINGS

A. Superior of Southport, Connecticut, owns and operates a hard chromium electroplating facility at Lacey Place, Southport, Connecticut.

B. Among other things, the chromium standard requires the owner or operator of an existing affected facility which conducts hard chromium electroplating to comply with the emission

limitation by January 25, 1997 and to conduct emissions testing by July 25, 1997.

C. On August 29, 1997, Superior conducted emissions testing of its chrome plating processes.

D. Superior's chrome plating process, among other requirements, is subject to a federal emission limit of 0.015 milligrams of total chromium per dry standard cubic meter (mg/dscm) found at 40 C.F.R. § 63.342(c)(1).

E. On or about November 17, 1997, EPA received a copy of Superior's emission sampling results. Review of the emission test report submitted by Superior revealed that Superior failed to achieve the emission limits established by 40 C.F.R. § 63.342(c)(1). Emissions were measured at 0.035 mg/dscm and 0.028 mg/dscm for the #2 fiber bed demister (FBD) and #3 FBD, respectively.

F. On June 15, 1998, EPA conducted an inspection and obtained information from Superior.

G. To date, Superior has not documented compliance with the emission limits required by the chromium emission standard at 40 C.F.R. § 63.342(c)(1).

Based on the foregoing, I hereby find Superior to be in violation of 40 C.F.R. § 63.342(c)(1).

II. ADMINISTRATIVE ORDER

A. Pursuant to Sections 113(a)(3) and 114(a)(1) of the Clean Air Act, Superior is hereby required to comply with the emission limit for hard electroplating tanks in accordance with

40 C.F.R. § 63.342(c)(1). Superior shall attain compliance as soon as technically feasible, but no later than November 1, 1998.

B. Within 30 days after completing the implementation of Superior's Compliance Plan to comply with the emission limits (see Section III.A.1 below) but no later than November 1, 1998, Superior shall conduct chromium emissions testing (performance testing) in accordance with EPA Reference Methods found at 40 C.F.R. Part 63, Appendix A, or equivalent procedures as approved by EPA.

C. Superior may confer with EPA concerning this Order and the findings on which it is based. To schedule a conference, please contact Steven Calder at (617) 565-3244 within one week of receipt of this Order. Superior has the right to be represented by counsel at such a conference.

III. REPORTING REQUIREMENT

A. Pursuant to Sections 113(a)(3) and 114(a)(1) of the Clean Air Act, Superior shall submit the following information to the EPA and the CT DEP after receipt of this Administrative Order and Reporting Requirement according to the following schedule:

1. Within 30 days of receipt of this Order, submit to EPA and the Connecticut Department of Environmental Protection (CT DEP):

(a) a Compliance Plan for complying with the emission limits including the technical basis for Superior's proposal to meet the emission limits.

(b) a schedule for implementing the Compliance Plan including but not limited to:

(i) the completion date of the Compliance Plan for complying with the emission limits;

(ii) a schedule for conducting performance testing including but not limited to:
(A) the submission date for a pretest protocol for the performance testing;
(B) the date for performance testing to measure the actual emission rate; and
(C) the submission date of the performance testing results.

2. Within 60 days before the compliance testing date, Superior shall submit a pretest protocol for testing the chromium emissions as outlined in Attachment A;

3. Within 90 days after conducting the performance testing, submit to EPA and the CT DEP a test report containing all information specified in Paragraph B of Attachment A.

Submit the information required above to the following address:

Ira W. Leighton, Acting Director
Office of Environmental Stewardship
U.S. Environmental Protection Agency
J.F.K. Federal Building (SEA)
Boston, Massachusetts 02203
Attn: Steven Calder

and

Michael Sullivan
Director of Engineering and Enforcement
Department of Environmental Protection
79 Elm Street
Hartford, CT 06490
Attention: Elizabeth McAulife

B. You may, if desired, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. Section 2.203(b) (see attachment). EPA will disclose information covered by such a claim only to the extent, and according to the procedures, set forth in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when EPA receives it, EPA may make it available to the public

without further notice to you. You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly subject to such a claim.

C. Please be advised that failure to provide information required by this Administrative Order and Reporting Requirement could result in an enforcement action by EPA under Section 113 of the Act. Among other remedies, Section 113 includes criminal penalties for false statements, representations, or certifications to EPA.

IV. EFFECTIVE DATE AND APPLICATION

The Administrative Order and the Reporting Requirement shall become effective upon receipt. If you have any questions regarding this matter, please contact Steven Calder at (617) 565-3244. The provisions of this Administrative Order and Reporting Requirement apply to Superior, its partners, officers, employees, agents, successors and assigns. The issuance of this Order does not preclude or limit further action by EPA to address violations of 40 C.F.R. Part 63 and the Act.

John P. DeVillars
Regional Administrator

7/13/98
Date

This Administrative Order and Reporting Requirement is not subject to the Paperwork Reduction Act.

ATTACHMENT A

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I
SURVEILLANCE AND ANALYSIS DIVISION
SOURCE EMISSION TESTING

A. PRETEST INFORMATION REQUIREMENTS

In order to establish uniform requirements and help ensure that proper test methods and procedures are utilized, the information specified below must be submitted to the EPA Region I Office at least 30 days prior to the scheduled test date. In the event of any deficiencies or discrepancies in the test protocol, the company will be notified. Submittal of this information will minimize the possibility of a test rejection resulting from improper sampling or data collection procedures.

Testing shall be performed in strict accordance with procedures specified in the Code of Federal Regulations, in Title 40, Part 60, Appendix A, Standards of Performance for New Stationary Sources, as amended or in Title 40, Part 61, Appendix B, National Emission Standards for Hazardous Air Pollutants, as amended. Any variations in the sampling or analytical procedures must be indicated in the pretest information and receive written approval from this office prior to testing.

The information to be submitted includes, as a minimum:

1. Indentification and a brief description of the source to be tested. The description should include:

   a. Type of industrial process or combustion facility

   b. Type and quantity of raw and finished materials used in the process

   c. Description of any cyclical or batch operations which would tend to produce variable emissions with time

   d. Basic operating parameters used to regulate the process

   e. Rated capacity of the process.

2. A brief description of the air pollution control equipment associated with the process including:

   a. Type of control device

   b. Operating parameters

   c. Rated capacity and efficiency

   d. Ultimate disposal of wastes.

3. Type of pollutant to be sampled (particulate, NO_x, SO_2, hydrocarbon, etc.)

4. A description of the emission sampling equipment including a schematic diagram of the sampling train.

5. A description of the sampling and analysis procedures. Reference standard methods, if applicable. Indicate any proposed variations with justification.

6. A sketch with dimensions indicating the flow of exhaust gases from the process, through the control equipment and associated ductwork to the stack.

7. According to Method 1, 40 CFR 60:

   a. An elevation view of the dimensions of the stack configuration indicating the location of the sampling ports and distances to the nearest upstream and downstream flow interferences.

   b. A cross-sectional sketch of the stack at the sampling location with dimensions indicating the location of the sampling traverse points.

8. Estimated flue gas conditions at sampling location, including temperature, moisture content, and velocity pressure.

9. A description of the process and control equipment operating data to be collected during the sampling period.

10. Copies of the field data sheet forms to be used during the tests.

11. Names and titles of personnel who will be performing the tests.

12. A description of the procedures for maintaining the integrity of the samples collected, including chain of custody and quality control procedures.

13. Calibration sheets for the dry gas meter, orifice meter, pilot tube, and/or any other equipment that requires calibration.

14. A list of preweighed filters to be used during particulate emission testing, including identification and tare weights.

(Requirements 13 and 14 must be submitted prior to actual testing, but do not have to be included with the pretest information.)

B. EMISSION TEST REPORTING REQUIREMENTS

The emission test report should contain all pertinent data concerning the tests, including a description of the process and operating conditions under which the tests were made, the results of the tests, and test procedures. While the exact format of the report will vary depending upon the type and objective of the tests, indicated below is a suggested format containing required information.

1. Introduction

   a. Identification, location, and dates of tests.

   b. Purpose of tests.

   c. Brief description of source.

   d. Name and affiliation of person in charge of tests.

2. Summary of results

   a. Operating and emission data.

   b. Comparison with applicable emission regulations.

3. Source description

   a. Description of process including operation of emission control equipment.

   b. Flow sheet (if applicable).

   c. Type and quantity of raw and finished materials processed during the tests.

   d. Maximum normal rated capacity of the process.

   e. Description of process instrumentation monitored during the test.

4. Sampling and analytical procedures

   a. Description of sampling train and field procedures.

   b. Description of recovery and analytical procedures.

   c. Sketch indicating sampling port locations relative to process, control equipment, upstream and downstream flow disturbances.

d. Sketch or cross-sectional view of stack indicating traverse point locations.

5. Test results and discussion

   a. Detailed tabulation of results including process operating conditions, flue gases conditions.

   b. Discussion of significance of results relative to operating parameters and emission regulations.

   c. Discussion of any divergencies from normal sampling procedures or operating conditions which could have affected the test results.

6. Calculation and data reduction methods

   a. Description of computational methods, including equation format used to obtain final emissions results from field data.

   b. Sample calculations from at least one run of each type of test performed.

APPENDIX

1. Copies of all field data collected during the test, including sampling data sheets and process operating logs.

2. Copies of all analytical laboratory data.

3. Calculation sheets or computer input and output data.

4. Sampling equipment and laboratory calibration data.

5. Names and titles of personnel and organizations participating in the tests.

6. Visible emission observations performed during the tests (if required).

7. Copies of all chain of custody information.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

August 22, 1997

Dan Aune
Air Tox Environmental Company, Inc.
P.O. Box 239
Willington, CT 06279

BY MAIL AND FAX

Re: Review of Chromium Test Protocol - Superior Plating Co., Southport, CT

Dear Mr. Aune:

Your letter dated July 7, 1997 to Al Hicks of EPA Region I New England encloses a chromium test protocol for Superior Plating, and an Intent to Test Notification. This letter requested a chromium test date of July 22, 1997. A subsequent letter from Richard Durazzo of Superior Plating to me indicates that the former date was not acceptable to the Connecticut Department of Environmental Protection, and requests a revised test date of August 29, 1997. It is my understanding from talking with George Miller of the Connecticut DEP that the August 29, 1997 date is acceptable to DEP. EPA has no objection to the proposed August 29, 1997 testing date, and does not intend to witness the test.

I have reviewed the chromium test protocol for Superior Plating. The test protocol is acceptable subject to satisfactory revision to address the comments below. Air Tox should submit a complete revised test protocol incorporating these revisions with copies to me and Jack Harvanek of our Lexington lab (same address as Al Hicks).

1) A more detailed description of how process and control system data is to be recorded during the testing would be helpful, as would an indication that instrumentation used to monitor these data have been calibrated and are in proper working order. Note that the stack test would be invalid if these equipment are not working properly to simultaneously establish site-specific operating parameter compliant values.

2) The test protocol indicates that "every attempt will be made to maximize the process operating conditions during testing." The test protocol needs to indicate more specifically the operating conditions during testing in terms of rectifier capacity and the number of tanks in operation, especially in light of the facility's large maximum cumulative rectifier capacity (897 million amp-hours/yr), and indicate based on operating records how this compares to typical operating conditions.

3) The test protocol is unclear as to whether Diagram 4.1, "Sampling Port Locations", applies to both stacks to be tested. The text indicates (p. 8) that the four sampling ports are pre-existing.

Please clarify if this applies to both stacks. It would be preferable to revise the large plans accompanying the protocol to indicate directly on the plans where the sampling ports are located.

4) The protocol indicates on page 8 that 24 sampling points are required by Method 306A and will be utilized. Method 306A indicates (at Section 5.1.1.1, "Procedure"/Port Location"), that 24 sampling points are to be used for round ducts and 25 points for square ducts. The plans submitted with the protocol appear to indicate that both ducts are square. In this case, 25 sampling points would be needed to comply. Please clarify the duct shape and resubmit with 25 points if the ducts are square. However, if you still wish to request use of the existing four sampling ports and 24 sampling points due to operational considerations, contact Jack Harvanek of OEME-Lexington (or in his absence, Al Hicks of the same office) to discuss whether use of 24 sampling points is acceptable in this instance and obtain his advance approval prior to testing before adopting this deviation from the test method.

5) The QA/QC procedures to be used by Environmental Health Laboratories for lab analysis as part of the protocol are under separate review by our lab. These comments are forthcoming and will be submitted directly to you.

6) P. 12 of the protocol indicates that "sampling procedures will be repeated until three one-hour samples have been collected", at variance with p. 3 which indicates that three two-hour tests will be conducted. Method 306A requires three two-hour tests. Please clarify that a two-hour sampling time will be conducted and correct p. 12 accordingly.

If you have questions, please contact me at (617)-565-3281 or Jack Harvanek at 617-860-4391.

Sincerely,

Roy Crystal

Roy Crystal, Environmental Scientist

cc: Jack Harvanek, EPA
Mark Spiro, CT DEP
George Miller, CT DEP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND
Office of Environmental Measurement & Evaluation
60 Westview Street
Lexington, MA 02421-3185

MEMORANDUM

DATE: November 2, 1998

SUBJ: Superior Plating Co., Southport, CT, Chromium Test Observation Report

FROM: Alan J. Hicks, Environmental Engineer
OEME/EIA

TO: Steven Calder, Environmental Engineer
OES/SEA

On October 13-14, 1998, I observed chromium MACT emission testing at Superior Plating Co. in Southport, CT. Superior has three chrome emission control lines. I observed testing on System 2 on 10/13 and System 1 on 10/14. Testing on System 3 was observed by CT DEP personnel on 10/15. Matt Hemming of CT DEP was also onsite for portions of the two days during which I observed. Observation comments follow:

1) During both days of testing, the test crew from Air Tox, headed by John Schneider sampled in adherence to Method 306A and the approved procedures provided in the test protocol. All required leak checks were performed and the Stacks for Systems 1 and 2 both passed Method 2 cyclonic flow criteria.

2) Plant personnel took regular readings of control system pressure drops and of plating amperes on the chromium electroplating tanks being tested. Multiple tanks on each system were in operation throughout the emission testing ensuring representative operating conditions.

3) The test platforms were comprised of permanent support beams and temporary flooring in order to meet local zoning requirements regarding height of structures. Test personnel used full-body safety harnesses and shock-absorbing lanyards when on the platform.

4) The plating tanks are powered by collections of multiple rectifiers, many of which appear to have been salvaged from other facilities. Plating currents were determined by totaling the indicated currents for each tank.

5) There was considerable external storage of used equipment on the property on which Superior Plating Co. is located. Some of the equipment appeared to be old rectifiers. I spoke with Rich Durazzo, the facility environmental officer, about the desirability of checking the old equipment

for poly-chlorinated biphenyls.

Before leaving the site, I collected copies of the test data sheets, calibration sheets and plant operating data for the test period.

If you have any questions regarding this report, you may contact me at 781-860-4388.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND
Office of Environmental Measurement & Evaluation
60 Westview Street
Lexington, MA 02421-3185

MEMORANDUM

DATE: August 26, 1998

SUBJ: Supplement to Chromium Test Protocol for Superior Plating Co., Southport, CT.

FROM: Alan J. Hicks, Environmental Engineer
EIA

TO: Steve Calder, Environmental Engineer
SEA

I received a letter from Dan Aune of Air Tox Environmental Company responding to my earlier comments on their test protocol for Superior Plating Company of Southport, CT. The responses adequately address the concerns I raised in my memo of August 4, 1998. With the addition of this addendum and the detailed drawings previously submitted to SEA, the test protocol is complete and sufficiently describes the testing to be performed. I do not plan to request a revised test protocol at this time. The letter from Air Tox indicates that you were sent a copy of the responses.

If you have any questions concerning this review, you may contact me by phone at 781-860-4388.

PURCHASE ORDER

SUPERIOR TECHNOLOGY

SUPERIOR PLATING COMPANY
LACEY PLACE • SOUTHPORT, CT 06490
TELEPHONE: (203) 255-1501 • FAX: (203) 254-3818

No. 17281

NDOR:

MIDWEST AIR PRODUCTS, CO.
280 HUGHES DRIVE
P.O. BOX 5319
TRAVERSE CITY, MI 49685-5319

TEL: (800) 976-27
FAX: (616) 941-15

VENDOR NO.	SUBLET NO.	P.O. NUMBER	DATE	SHIPPING INSTRUCTIONS
1476	59500	17281	10/16/97	ATTN: WARREN T. TINGLEY

PART NUMBER	DESCRIPTION	QTY	UNIT PRICE	AMOUNT
	MAPCO ENFOCERS	3	39518.2500	118554.75
	NYB BLOWERS W/ 40HP MOTOR	6	7302.0000	43812.00
	PREMIUM EFFICIENCY MOTOR	6	531.1667	3187.00
	STACKS & TRANSITIONS (36IN DUCTS)	6	1979.0000	11868.00
	AUTOMATIC WASHDOWN COMPONETS	1	4664.0000	4664.00
	FRESH WATER HOLDING TANK	1	3344.0000	3344.00
	VIBRATION ISOLATORS	6	259.0000	1554.00
	MASTER CONTROL PANEL	1	23285.0000	23285.00
	BACK DRAFT DAMPERS (36IN)	6	1080.0000	6480.00
	.	0	0.0000	0.00
	ITEMS 9, 4 & 8 ARE ESTIMATED. TOTAL PRICE NOT TO EXCEED $222,748.75	0	0.0000	0.00
		0	0.0000	0.00

VENDOR 1476
DIST. 59500 44884
APP. W/ TT

	216748.75
Shipping -)	0.00
Tax -)	0.00
TOTAL ►	216748.75

Warren T. Tingley
AUTHORIZED SIGNATURE

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT

ENFORCEMENT CONFIDENTIAL
This document contains enforcement sensitive information.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND REGION
J.F.K. FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-0001

MEMORANDUM

DATE: August 17, 1998

SUBJ: Superior Plating Company
Southport, CT
Chromium MACT Enforcement

FROM: Steven J. Calder, Environmental Engineer

TO: FILE

CASE DATA SHEET

Date of Inspection: June 15, 1998

VIOLATIONS:

Superior Plating Company "Superior" failed to meet the emission limit for the Chromium MACT, 40 C.F.R. §63 Subpart N based on the performance test results performed by the facility. Emissions were measured at 0.035 and 0.028 milligrams of total chromium per dry standard cubic meters (mg/dscm). The emissions limt is 0.015 mg/dscm. This represents emission exceedance 110% over the standard, ((0.035-0.015/0.015)x100%=133%. EPA issued an Administrative Order and Reporting Request on July 13, 1998. For the purposes of calculating the period of non-compliance the violation is assumed to have occurred from the time of the performance test (8/97) to the time of retesting (11/98), 15 months.

PROPOSED PENALTY CALCULATION:

A. Economic Benefit Component - The economic benefit associated with not complying with the Chrome MACT standard is the delayed costs of spending $600,000 to install the new system. The facility was required to comply with the MACT standard by the compliance date of January 25, 1997 to the time of retesting (11/98), 21 months.

TOTAL ECONOMIC BENEFIT $94,621*

ENFORCEMENT CONFIDENTIAL
This document contains enforcement sensitive information.

B. Gravity Component

1. Actual or Possible Harm	
a. Level of violation (133% above standard)	$25,000
b. Toxicity of the pollutant	15,000
c. Sensitivity to environment	N/A
d. Length of time of violation (15 months)	20,000
2. Importance of Regulatory Scheme	
3. Size of Violator - Size of violator assumed $1 to 5MM	10,000
4. Adjusting the Gravity Component	
a. Degree of willfulness or Negligence	N/A
b. Degree of cooperation	N/A
c. History of noncompliance	N/A
d. Environmental Damage	N/A
TOTAL GRAVITY COMPONENT	$70,000

C. Inflation - Pursuant to the Debt Collection Improvement Act, 31 U.S.C. 3701, which requires penalties to be adjusted for inflation, the penalty is increased by 10% for violations discovered after January 30, 1997 (gravity component).

TOTAL INFLATION	$ 7,000

TOTAL PENALTY (Economic Benefit + Gravity+Inflation): $171,621

*See attached BEN Calculation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

Faxed and U.S. Mailed

August 5, 1998

John Durrazo, Environmental Manager
Superior Plating Company
Lacey Place
Southport, CT 06490

Re: Clean Air Act Administrative Order
and Reporting Requirement
Docket No. AAA-98-0033

Dear Mr. Durrazo:

Attached to this letter is a copy of comments from EPA regarding the test protocol submitted to EPA on July 20, 1998. The comments regarding drawings and diagrams can be ignored since I have provided Alan Hicks with copies from my file. Please incorporate the other comments into your pretest protocol and resubmit the test protocol by August 25, 1998. To schedule the pretest conference or to resolve any technical issues regarding the pretest protocol please call Mr. Alan Hicks at (781)860-4388.

If you have any further questions you can call me at (617)565-3244.

Sincerely,

Steven J. Calder

Steven J. Calder
Environmental Engineer

Enclosure

cc: Matt Hemming, CT DEP
Dan Aune, Air Tox
Al Hicks, EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND
Office of Environmental Measurement & Evaluation
60 Westview Street
Lexington, MA 02421-3185

MEMORANDUM

DATE: August 4, 1998

SUBJ: Review of Chromium Test Protocol for Superior Plating Co., Southport, CT.

FROM: Alan J. Hicks, Environmental Engineer
EIA

TO: Steve Calder, Environmental Engineer
SEA

I have reviewed the subject document for conformance with 40 CFR Part 63 Subpart N - *National Emissions Standards for Chromium Emissions From Hard and Decorative Electroplating and Chromium Anodizing Tanks*, EPA Reference methods 306 and our usual pretest report review checklist.

The test protocol, dated June 1998 from *Air Tox Environmental Company* is unacceptable as submitted:

1) Diagram 4.1 in the protocol is a plan drawing of one of control devices and its dual stacks. Much of the text on the diagram is illegible, probably due to multiple copying. The locations of the mesh-pad pressure drop taps are not shown and the method of measuring the pressure drop is not described. An estimate of the expected pressure drop across the control systems would be useful.

2) The protocol indicates that testing will be done on one of the three pairs of stacks each day, but indicates a two-day testing period (October 13 -14, 1998).

3) The protocol must include a schematic drawing of the chromium tanks and their connections to the control devices. It is not possible to determine which sources are controlled by which composite mesh-pad unit from the information given. It also appears that there are two chrome recycling tanks connected to one or more of the control systems which are not regulated by the Chrome MACT. The non-affected sources must be addressed in conformance with 40 CFR 63 §63.344(e).

4) The flow measurement procedures in EPA Reference Method 306A assume constant

flow during the testing period. Are the exhaust fans operated at constant speed or are they variable-speed? If the fans are variable-speed,, it may be necessary to use the isokinetic sampling procedures of Method 306 in order to adequately represent the volumetric flow rate.

5) Calibration data sheets were included for the Method 5 box (dry-gas meter and orifice). Similar calibration data for the pitot tubes and thermocouples (or thermometers) should also be provided to the EPA or State observer before testing commences.

6) The protocol references the standards and test procedures published in the *Federal Register* of January 25, 1995. Several revisions to the regulations have gone into effect since the first promulgation in 1995. It would be advisable to make reference to the current regulations which can be found in 40 CFR 63, Subpart N and Appendix A of the same Subpart.

I will forward these comments to Superior and Air Tox and arrange a date for a pretest meeting at the facility. If you have any questions concerning this review, you may contact me by phone at 617-860-4388.